



Office of Data System Management, Special Education

Report on First Steps Children Identified through the Newborn Hearing Screening Program having Permanent Hearing Loss

February 2012

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Under the Newborn Hearing Screening law, Section 191.931 RSMo, the Missouri Department of Elementary and Secondary Education shall “monitor the delivery of early intervention services to those infants identified by the newborn hearing screening program and report annually to the department of health.” Eligible infants and toddlers are served by the Missouri First Steps Program under Part C of the Individuals with Disabilities Education Act (IDEA).

This report is divided into two sections as follows:

1. Analysis of the number of children enrolled in First Steps and identified through the newborn hearing screening program during calendar year 2010.
2. Early intervention services provided to Newborn Hearing Screening children in the First Steps Program under an Individualized Family Services Plans (IFSP).

Previous versions of this report included all levels of hearing loss identified through the Newborn Hearing Screening Program. Beginning with 2007, only children with permanent hearing loss and undetermined type of hearing loss are included in this report.

Personally identifiable information has been redacted pursuant to provisions of the Family Educational Rights and Privacy Act (FERPA), incorporated by reference in the IDEA.

Section One: Children identified by the Newborn Hearing Screening program and enrolled in the First Steps program

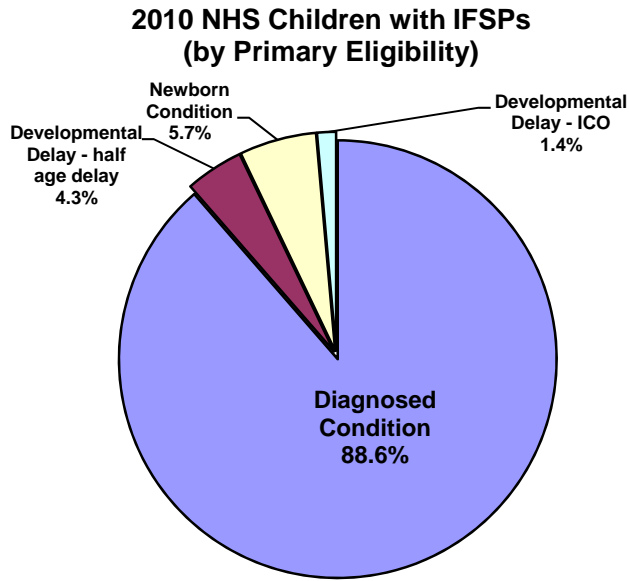
As of February 14, 2012, 99 children born in 2010 were identified with permanent hearing loss by the Department of Health (DHSS). Of the 99 children on the Hearing Screening list and born in 2010, 82 were found in the First Steps database (82.8%); 70 had been determined eligible for First Steps services based on one of Missouri’s First Steps program eligibility criteria (50% delay in one developmental domain, medical condition associated with developmental delay, physician confirmation of other condition associated with developmental delay, or very low birth weight) and received services through an Individualized Family Service Plan (IFSP). Twelve out of the 82 children found in the First Steps database were either unable to locate or were withdrawn from the program.

Sixty-seven children had active IFSPs as of February 14, 2012. It is important to note that the 99 children include those who have received incomplete results through testing and those who have unknown types of loss based on what has been reported to the DHSS. Children who are determined to be suffering from middle ear pathology (e.g., fluid in the middle ear from colds, ear infections) and who do not have a permanent hearing loss could be removed from the list at a later date based on updates received from audiologists.

<u>2010 Newborn Hearing Screening List (Permanent and Undetermined Type)</u>	
99 total children	
82 in First Steps Database	
	12 withdrawn/unable to locate
70 reached IFSP	
	3 moved out of state
67 active IFSPs	

Of the 99 children on the 2010 NHS list, 63 were deemed to have sensorineural hearing loss. Fifty-four of these (85.7%) were referred to First Steps, and 47 were found eligible (eligibility rate: 87.0%). In 2010, the number of children listed as “Incomplete Testing and/or Unknown Type” decreased by nearly 70% from last year and is an indication that children are receiving a correct diagnosis of hearing loss.

2010 NHS Children by Degree of Hearing Loss and First Steps Status					
<i>Type of Loss</i>	<i>Children</i>	<i>Referred to FS</i>	<i>% Referred</i>	<i>Received IFSP</i>	<i>Eligibility %</i>
Sensorineural	63	54	85.7%	47	87.0%
Auditory Neuropathy	8	7	87.5%	7	100.0%
Mixed	10	7	70.0%	7	100.0%
Permanent Conductive	2	1	50.0%	0	0.0%
Incomplete Testing and/or Unknown Type	16	13	81.2%	9	69.2%
Total	99	82	82.8%	70	85.4%



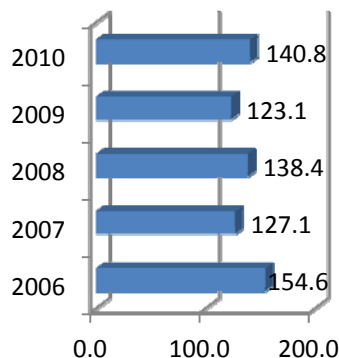
Of 2010's 70 children with an IFSP, 62 (88.6%) were determined eligible based on Diagnosed Condition known to be associated with developmental disabilities, 4 (5.7%) based on a Newborn Condition diagnosed within 30 days post-birth, 3 (4.3%) based on 50% delay in one developmental domain, and 1 (1.4%) due to Physician Confirmation of other condition associated with developmental disability.

The 70 children with an IFSP who were born in 2010 had the following primary diagnoses, 58 of which (82.9%) are related to hearing loss (those related to hearing loss are in boldface below).

- **Sensorineural Hearing Loss – 33**
- **Hearing Loss – 21**
- **Mixed Conductive and Sensorineural Hearing Loss – 4**
- Other and Ill-Defined Perinatal Conditions – 3
- Unspecified Delay in Development – 2
- Disorders Relating to Extreme Immaturity of Infant or Low Birth Weight Status – 2
- Multiple Congenital Anomalies, so described – 2
- Down Syndrome – 1
- Microcephalus – 1
- Cleft Palate and/or Cleft Lip – 1

Below is a chart outlining First Steps referral sources. Of the 82 NHS children born in 2010 and referred to First Steps, data shows that the most common primary referral sources for children with hearing concerns in the First Steps system have been the Hospital (28.0%), Parent (23.2%), and NICU (14.6%).

First Steps Referral Sources for NHS Children	
<i>Referral Source</i>	<i>2010</i>
Hospital (other than NICU)	23
Parent	19
NICU	12
Dept. of Health and Senior Services – DHSS	10
Other Health Care Provider	9
Public Health Facilities/Providers	4
Physician (including Psych.)	3
Parents as Teachers	2
Total	82



The National Early Hearing Detection and Intervention (EHDI) goal regarding First Steps is to have infants enrolled in the First Steps program by 6 months of age (approximately 180 days). The table above to the left shows the average age at first referral by birth year. The five-year average age is 136.8 days or 4.5 months.

Section Two: Early Intervention Services

IDEA and the Missouri state regulations require that First Steps funds may only be used for Early Intervention services that an eligible child needs but is not currently entitled to under any other Federal, State, local or private source. Services and assistive technology reported in this section reflect those services paid for with Part C funds but not limited to Part C funds.

As of February 14, 2012, there were 296 active authorizations for NHS children in First Steps. Of these authorizations, the top three categories were:

- 1) Special Instruction with 29.7% (88 authorizations);
- 2) Audiology with 29.4% (87 authorizations);
- 3) Speech Language Pathology with 15.5% (46 authorizations).

Service Type	<i>AT Service</i>	<i>Consultation, Facilitation with Others</i>	<i>Direct Child Service</i>	<i>Evaluation, Assessment</i>	<i>Family Education, Training, Support</i>	<i>Evoked otoacoustic</i>	<i>Tympanometry (impedance testing)</i>	<i>Visual Reinforcement Audiometric</i>	Total	% of Total Auths
Audiology	12	11	28	13		7	8	8	87	29.4%
Nutrition Services		5	5						10	3.4%
Occupational Therapy	1	8	16						25	8.5%
Physical Therapy		12	28						40	13.5%
Special Instruction		24	63	1					88	29.7%
Speech Language Pathology		5	40		1				46	15.5%
Grand Total	13	65	180	14	1	7	8	8	296	100.0%